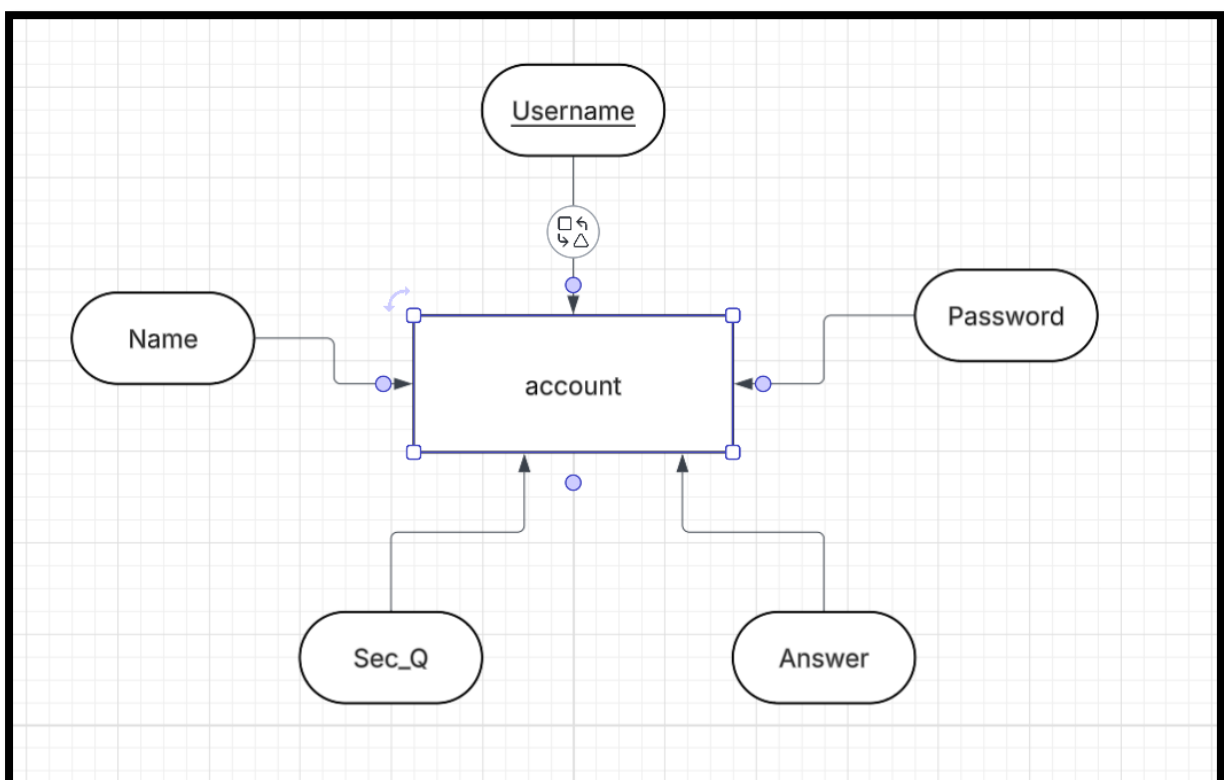


## Account Table:-

To create the **Account** table, we first identified the required information that needs to be stored for each user. The table includes the following attributes:

1. **name** – Stores the full name of the user.
2. **username** – A unique identifier chosen by the user for login.
3. **password** – Stores the user's password in a secure format.
4. **security\_question** – A question selected by the user for account recovery.
5. **answer** – The answer to the security question, used for verification.

After deciding the attributes, we designed the table structure so that each field has an appropriate data type. The **username** is kept unique to avoid duplicates. The **password** and **answer** should ideally be stored in an encrypted or hashed format for security.

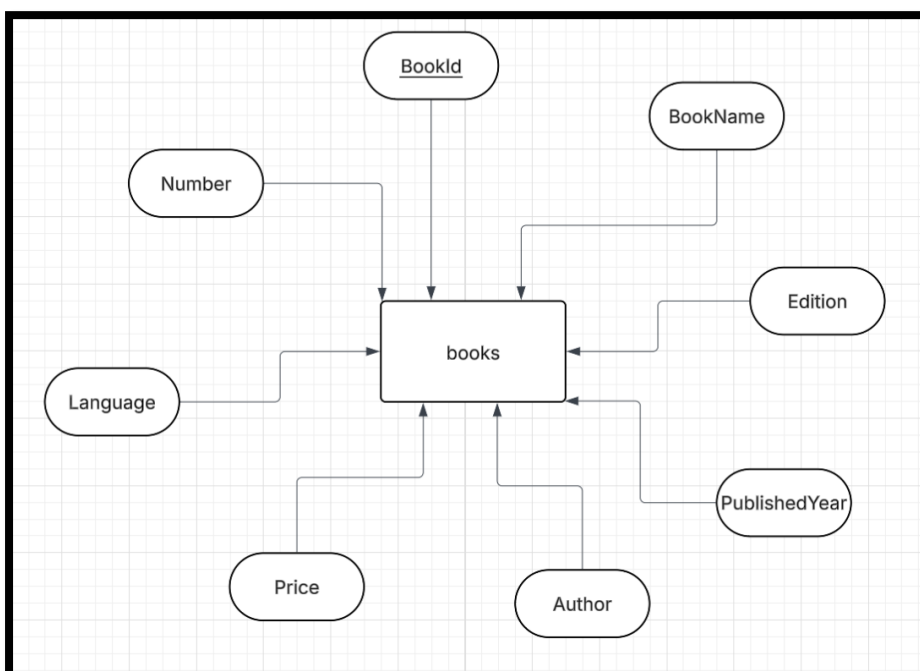


## Books Table:-

To create the **Book** table, we first identified all the details that need to be stored for each book in the system. The table includes the following attributes:

1. **bookId** – A unique identifier for each book.
2. **bookName** – The title of the book.
3. **edition** – The edition number of the book (e.g., 1st, 2nd, 3rd).
4. **publishedYear** – The year in which the book was published.
5. **author** – The name of the author of the book.
6. **price** – The cost of the book.
7. **language** – The language in which the book is written.
8. **noOfCopies** – The number of copies available.

Once the attributes were finalized, we planned suitable data types for each field. The **bookId** is kept as a primary key to uniquely identify each record. Text-based fields like bookName, author, and language use string data types. Numeric fields like edition, publishedYear, price, and noOfCopies use number-based data types.

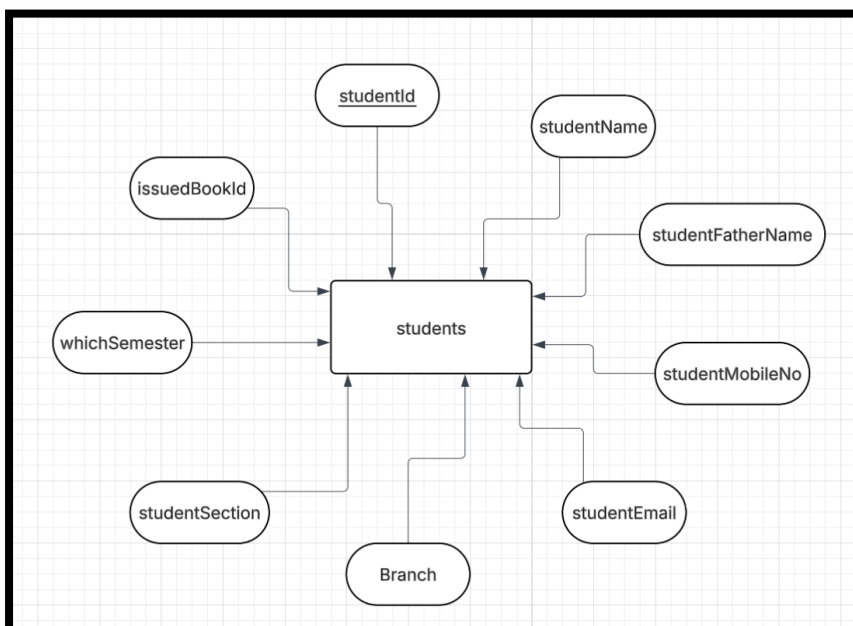


## Student Table:-

To create the **Student** table, we first identified all the information that needs to be stored for each student. The table includes the following attributes:

1. **studentId** – A unique identification number for each student.
2. **studentName** – The full name of the student.
3. **studentFatherName** – The name of the student's father.
4. **studentMobileNo** – The mobile phone number of the student.
5. **studentEmail** – The email address of the student.
6. **branch** – The academic branch or department of the student (e.g., CSE, ECE).
7. **section** – The section in which the student studies (e.g., A, B).
8. **semester** – The semester the student is currently in.
9. **issuedBookId** – The ID of the book issued to the student (this may act as a foreign key linked to the Book table).

Once all the attributes were finalized, we selected appropriate data types for each field. The **studentId** is set as the primary key to uniquely identify each student. Fields like **studentName**, **fatherName**, **branch**, and **section** use string data types. Numeric and email fields use formats suitable for their data type. The **issuedBookId** can be linked to the Book table for maintaining relationships.



## Conclusion :-

The Student table was created by identifying all essential details needed for each student and assigning suitable data types to every attribute. The **studentId** was set as the primary key to uniquely identify records, while other fields store personal, academic, and book-issue information. This structured design ensures proper data storage, easy access, and efficient management of student records.